APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,839	04/30/2001	Robert E. Johnson	10004559-1	3219

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EXAMINER
COBY, FRANTZ

ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/845,839	JOHNSON ET AL.
	Examiner	Art Unit	
	Frantz Coby	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _27 July 2006_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-30_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-30_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

This is in response to Applicant's amendment filed on July 27, 2006 in which claims 1-

30 are presented; of which claims 1, 21 and 29 are amended.

Status of Claims

Claims 1-30 are rejected under section 35 U.S.C. 103(a) below. _The amendment to_

claims 1, 21 and 29 have changed the scoped of the previously presented claims 1, 21

and 29. Therefore, requires a new ground of rejection as detailed below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Burton et al. U.S. Patent no. 6,393,535 in view of Kato et al. U.S. Patent no. 5,721,722.

As per claims 1, 21, and 29, Burton et al. disclose a method and system "storing

discovery information relating to a storage device" by providing a method, system and

program for modifying preferred path assignments to a storage device in which the

preferred path allocation of the LUNs (Logical Unit Numbers) are maintained in non-

volatile storage (See Burton et al. Col. 5, lines 9-10). The Applicant indicated in Page

11 lines 6-28 that Path Status Information and Logical Unit Number information are the

information discovered for the storage device. In addition, Burton et al. discloses the

claimed features of "querying said storage device for device identification information"

by providing mechanism for a host to inquire for data or for the path allocation of the

LUNs (See Burton et al. Col. 5, line 12).

Although Burton discloses [w]hen returning inquiry data [record 50] to a host 4a,

b, the controller 14a, b would use the configuration data indicating the preferred path

assignment to update the preferred path field 54 of the inquiry data [record] 50 to

indicate the preferred path to the LUN (See Burton et al. Col. 5, lines 12-20). It is noted,

however, Burton did not specifically disclose the claimed feature of "comparing at least

a portion of returned device identification information to at least a portion of said stored

discovery information" as recited in the instant claims. On the other hand, Kato et al.

achieved the aforementioned claimed features by providing a controller and a data

processing method wherein, the memory of the second control unit includes **_a device_**

information setter which stores comments, indicating characteristics of the

devices controlled by the plurality of upper or lower controllers from which data is to be

collected, and identifies the devices in relation to the comments. Also, the first control

unit includes ***a specifier, which specifies comments which are compared to the***

comments stored in the device information setter to specify from which of the

plurality of upper or lower controllers the data is to be collected.

Kato et al. also indicates that, the memory of the second control unit includes ***a device***

information setter which stores comments, indicating characteristics of the

devices controlled by the plurality of upper or lower controllers from which data is to be

collected, and identifies the devices in relation to the comments. The first control unit

includes ***a specifier which,*** at a time of initialization of said upper or lower controllers,

specifies a number of portions of data to be collected, and ***specifies comments which***

are compared to the comments stored in the device information setter to specify

from which of the plurality of upper or lower controllers the data is to be collected. The

Applicant should duly note that, according to Kato, the stored comments represents

characteristics (*a device characteristic may include identification information*) of the

devices and the comments (*characteristics of the devices*) are compared to the

comments stored in the device information (*stored discovery information*) setter (See

Kato et al. Col. 4, lines 31-52). Therefore, Kato et al. clearly met the claimed limitations

of "comparing at least a portion of returned device identification information to at least a

portion of said stored discovery information".

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Burton's method for defining paths for a computer; wherein the controllers provided thereof (See Burton et al. Figure1, components 14a and 14b) would have incorporated Kato's teachings of storing device characteristics and specify device characteristics which are compared to device characteristics stored in the device information setter as taught by Kato et al (See Kato et al. Col. 4, lines 31-52). The motivation being, to have enhanced the versatility of the controllers in Burton; thus, permitting Burton to provide a controller and data processing environment which permits easy collection of response data from a plurality of different types of upper or lower controllers without complicating a user program (See Kato et al. Col. 3, lines 21-25).

As per claim 2, most of the limitations of this claim have been noted in the rejection of claims 1, 21, and 29. Applicant's attention is directed to the rejection of claims 1, 21, and 29 above. In addition, Burton et al. disclose the claimed feature of "wherein said at least a portion of the said stored discovery information includes device and host bus adapter information" as a host field and controller field (See Burton et al. Figure 3, Col. 5, lines 26-43).

As per claim 3, most of the limitations of this claim have been noted in the rejection of claims 1, 21, and 29. Applicant's attention is directed to the rejection of claims 1, 21, and 29 above. In addition, Burton et al. disclose the claimed feature of

"wherein said stored discovery information is obtained through at least one small computer system interface" (Col. 4, lines 42-58).

As per claim 4, most of the limitations of this claim have been noted in the rejection of claim 2. Applicant's attention is directed to the rejection of claim 2 above. In addition, Burton et al. disclose at least one system file (See Col. 9, lines 36-54).

As per claim 5, most of the limitations of this claim have been noted in the rejection of claim 2. Applicant's attention is directed to the rejection of claim 2 above. In addition, Burton et al. disclose "wherein said stored discovery information is obtained through at least one element selected from the group consisting of: operating system kernel application programming interface call; host bus adapter device driver library application programming interface; and some combination thereof" (See figure 3 and corresponding text).

As per claim 6, most of the limitations of this claim have been noted in the rejection of claim 1. Applicant's attention is directed to the rejection of claim 1 above. In addition, Burton et al. disclose wherein said at least a portion of said returned device identification information includes Product ID, Vendor ID and Product Revision Information" Col. 5, lines 26-65).

As per claims 7-8, most of the limitations of these claims have been noted in the rejection of claim 1. Applicant's attention is directed to the rejection of claim 1 above. In addition, Burton et al. disclose standard device inquiry information, device address information (See Burton et al. Figure 2).

As per claim 9, most of the limitations of this claim have been noted in the rejection of claim 8. Applicant's attention is directed to the rejection of claim 8 above. In addition, Burton et al. disclose "determining and comparing claimed address information" during the process of returning inquiry data to a host where the controllers would use the configuration data indication the preferred path assignment to update the preferred path field of the inquiry data to indicate the preferred path to the LUN (See Burton et al. Col. 5, lines 12-20).

As per claim 10, most of the limitations of this claim have been noted in the rejection of claim 9. Applicant's attention is directed to the rejection of claim 9 above. In addition, Burton et al. disclose flagging said stored discovery information if said determined claimed address information does not match said stored claimed address information (See Burton et al. Col. 5, line 66-Col. 6, line 60).

As per claim 11-14, most of the limitations of these claims have been noted in the rejection of claim 9. Applicant's attention is directed to the rejection of claim 9 above. In addition, Burton et al. disclose querying for serial number during the process of

returning inquiry data to a host where the controllers would use the configuration data

indication the preferred path assignment to update the preferred path field of the inquiry

data to indicate the preferred path to the LUN (See Burton et al. Col. 5, lines 12-20; Col.

5, line66-Col. 6, line 60). Also see Figure 2 for storage of the Unit serial number.

Querying includes at least one small computer interface inquiry (See Col. 4, lines 42-

58).

As per claim 15-20, most of the limitations of these claims have been noted in the

rejection of claims11-14. Applicant's attention is directed to the rejection of claim 9

above. In addition, Burton et al. disclose deleting or updating said stored discovery

information by providing mechanism for modifying the preferred path assignment (See

Burton et al. Col. 7, lines 5-49); means for transmitting information to the storage

management is achieved through the HUBs 10a and 10b of figure 1; storing of the

information is achieved in the storage device 16 of figure 1; communicating and event

requesting the addition of said returned information or an update of previous information

using said returned information is achieved during the process of returning inquiry data

to a host where the controllers would use the configuration data indication the preferred

path assignment to update the preferred path field of the inquiry data to indicate the

preferred path to the LUN (See Burton et al. Col. 5, lines 12-20). Preventing

communication between a storage management system and said device (See Burton et

al. col. 5, line 66-col. 7, line 3).

As per claims 22-28, all the limitations of these claims have been noted in the rejection of claims 1-21. They are therefore rejected as set forth above.

As per claim 30 most of the limitations of this claim have been noted in the rejection of claims 1, 21 and 29 above. In addition, Burton et al. provides a platform for allowing a host to inquiring during system start-up or doing a discovery polling period by providing a host device that built a LUN path table indicating preferred path information during host initialization (See Burton et al. Col. 5, lines 44-65).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Christensen et al. U.S. Patent no. 5,557,482 disclosed a multipath channel apparatus and method for data storage devices and communications systems wherein a data path is selected based on errors.

Christensen et al. European Patent 0 718 842 A1 discloses an apparatus and method for data storage device and communications system with multiple parallel signal processing paths.

Chen U.S. Patent no. 6,442,556 disclosed a software package that can store files in assigned storage device.

Kern et al. U.S. Patent no. 6,393,537disclosed a host storage management control of outboard data movement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz Coby whose telephone number is 571 272 4017. The examiner can normally be reached on Monday-Friday 9:00AM-5: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey Gaffin can be reached on 571 272 4146. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

FRANTZ COBY
PRIMARY EXAMINER

October 14, 2006